

## ABSTRACT OF THE DISCLOSURE

A solid-state image pickup apparatus includes a color filter including complementary color filter segments. When a shutter release button is pressed to its half-stroke or full-stroke position, light incident via the filter is picked up in a movie/photometry or a still picture mode, respectively. While signal charges are read out of an image sensor in accordance with the mode, the signal charges are digitized to become pixel data. In the movie/the photometry mode, despite that a plurality of pixel data are mixed together, a set of primary color pixel data are generated as if pixel signals were thinned out by mixture. In the still picture mode, all the pixels are sequentially read out and interpolated to generate primary color pixel data greater in number than photosensitive cells. The primary color data are raised in frequency to enhance the resolution of a picture.